

REMARKS

Claims 1-25 were pending of which Claims 1-3, 5-18, and 21-25 were rejected and Claims 4, 19, and 20 allowed.

Drawings

The Examiner did not accept the substitute drawings that were previously submitted. The Examiner stated that it is improper to provide two timing diagrams in a single figure. As per the Examiner's suggestion, Fig. 5 is amended to include Figs. 5A and 5B, along with corresponding changes in the specification.

Claim Rejections – 35 U.S.C. §102

Claims 1-3, 5-18, and 21-25 were rejected under 35 U.S.C. §102(b) as being anticipated by Chan (5,243,226). Applicants respectfully request reconsideration and withdrawal of the rejection.

In response to the Applicants' Response to Office Action, the Examiner stated "Examiner disagrees that 'Chan does not ... implicitly teach' the claimed subject matters." The Examiner stated that after considering the portions of Chan cited by Applicants, "none of these portions are seen to contradict the above rejection."

The Examiner provides his reasoning as follows:

As an example, Col. 4, lines 8-16, states that "The second pulse 201.2 reduces the antifuse resistance more consistently if current I2 is lower in magnitude than current I1". It is more than clear from this disclosure that if I2 is higher than I1, the antifuse resistance will be less consistent. From this and the rest of Col. 3-4, it is understood, by clear implication, that I2 can in fact be higher than I1, although the result will be less consistent.

Applicants respectfully disagree. Applicants submit that Chan's statement that "the antifuse resistance [is reduced] more consistently if current I2 is lower in magnitude than current I1" is in comparison to having the same magnitude currents I1 and I2, not, as the Examiner assumes, in comparison to having I2 greater than I1.

Chan explicitly teaches that "the general rule [is] that a greater current through the antifuse provides lower resistance." Col. 4, lines 14-16. Thus, according to this general rule, if multiple currents are used, the currents should have the same magnitude, i.e., the maximum permissible current.

Thus, the fact that Chan teaches that I2 is lower than I1, which Chan notes runs against the general rule, does not lead to a “clear implication, that I2 can in fact be higher than I1” as stated by the Examiner. The implication is that if one were to go against the teaching of Chan, i.e., I2 is not to be lower than I1, then I2 and I1 should have the same magnitudes, i.e., both currents should be as large as possible, according to the general rule as expressed in Chan.

The Examiner’s rejection relies solely on implication. Nowhere in Chan is there discussion of using a first current I1 that is less than the second current I2. However, the teachings of Chan are focused on using a second current I2 that is less than the first current I1. There is no implication in Chan that the first current I1 can be less than the second current I2. This would, in fact, run counter to Chan’s express teaching that the general rule is that both currents should be as large as possible.

Thus, Claim 1 is not anticipated or rendered obvious by Chan. For at least the same reasons, Claims 2-3 and 5-8, which depend from Claim 1, are therefore patentable over Chan.

Independent Claims 9 and 21 are patentable for at least the same reasons as Claim 1. Claims 11-18 depend from Claim 9 and are therefore likewise patentable. Claims 22-25 depend from Claim 9 and are therefore likewise patentable.

In addition, the Examiner failed to address Applicant’s arguments regarding Claims 2, 5, 11, 22, and 23. Claim 2, by way of example, recites “wherein said current limited pulse and said second pulse have approximately the same voltage with opposite polarity.” Chan does not teach or suggest that the first pulse 210.1 and the second pulse 210.2 have the same voltages. In fact, Chan explicitly teaches that the pulse 210.1 has a voltage of 13V while the second pulse has a voltage of 9V. Col. 6, lines 40-45; Col. 13, lines 2-3; Col. 13, lines 15-16. Thus, Chan does not teach or suggest Claim 2.

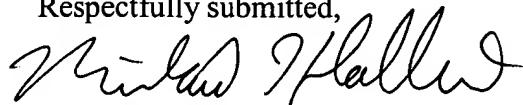
Claims 5, 11, 22, and 23 are patentable over Chan for reasons similar to that discussed above in reference to Claim 2.

SILICON VALLEY
PATENT GROUP LLP
2350 Mission College Blvd.
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210

For the above reasons, Applicants respectfully request allowance of Claims 1-25. Should the Examiner have any questions concerning this response, the Examiner is invited to call the undersigned at (408) 982-8202.

**Via Express Mail Label No.
ER 205 704 917 US**

Respectfully submitted,



Michael J. Halbert
Attorney for Applicants
Reg. No. 40,633

SILICON VALLEY
PATENT GROUP LLP

2350 Mission College Blvd.
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210

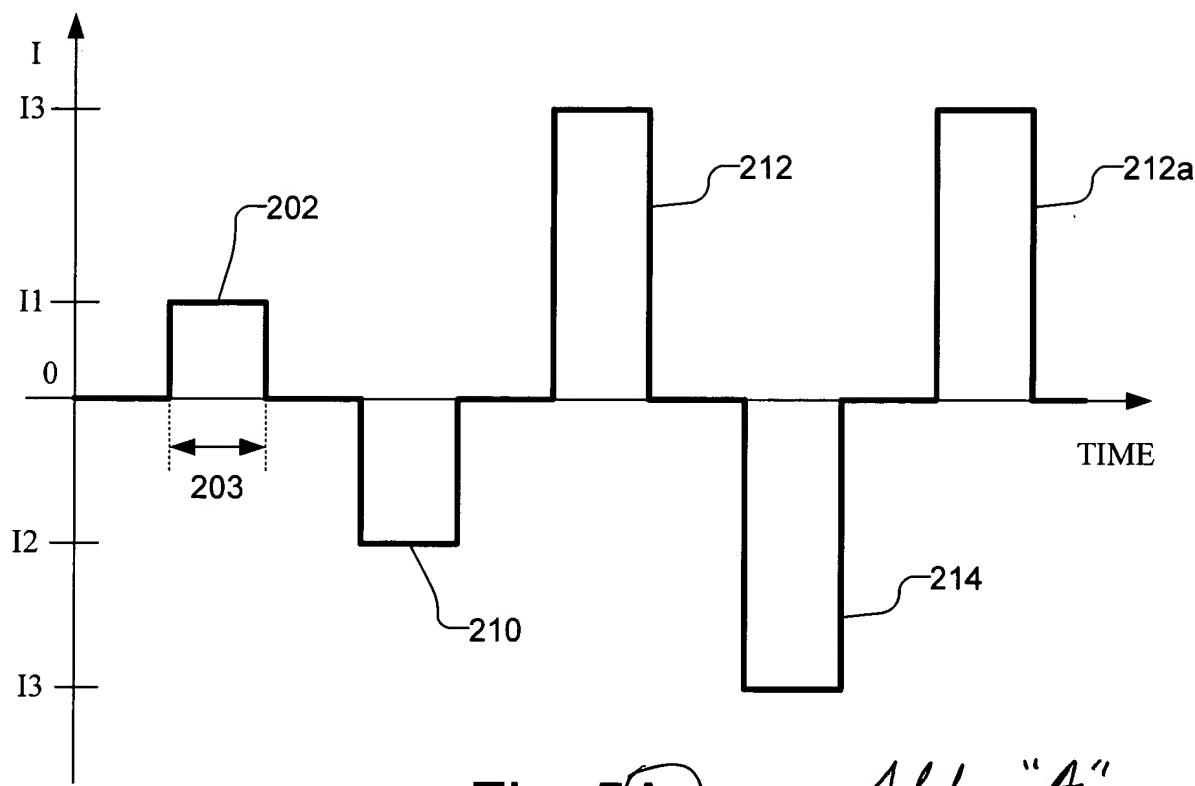


Fig. 5A — Add "A"

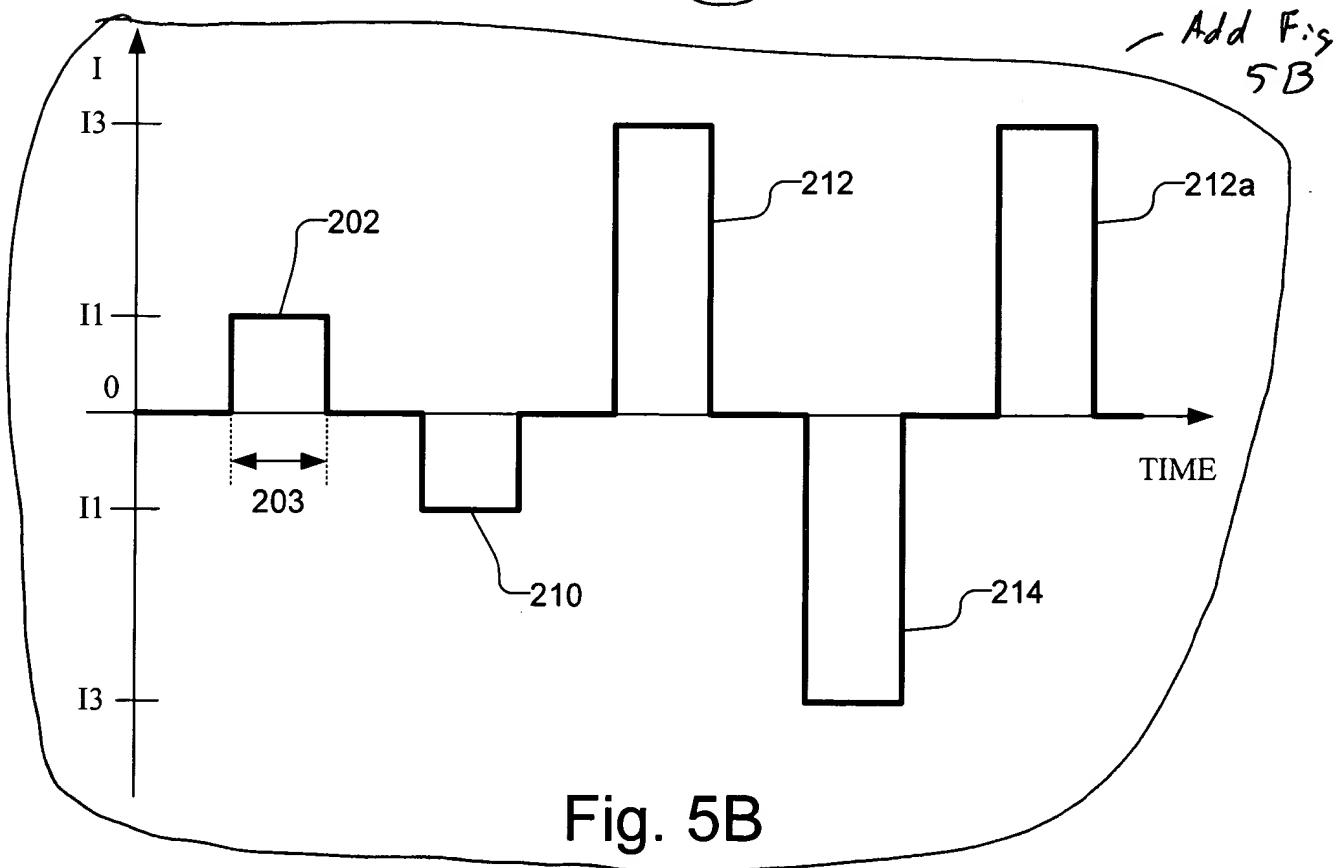


Fig. 5B